MULTIMEDIA UNIVERSITY

STUDENT ID NO | | | | | | | | | | |

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2019/2020

DOM5014 – OPERATIONS MANAGEMENT

(All Sections/Groups)

12 OCTOBER 2019
9.00am – 11.00am
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 7 pages with 2 sections.

2. Attempt **ALL** questions in Section A and Section B. The distribution of the marks for each question is given.

3. Please shade all your answers for Section A on the OMR form provided and all answers for Section B in the Answer Booklet provided.

SECTION A: Multiple Choice Questions (30 Marks)

1. Which of the following best describes a good operations organisation?
   A. Dante Hotel has introduced half-day room reservations in Agoda.com.
   B. GreenLife Logistics has rented their warehouse space to public.
   C. Sunny Bed and Breakfast duplicates the rival's breakfast menu.
   D. WindBlue has extended the supply chain system policy to all vendors.

2. Johnny works as Head Chef in one of the top fine dining restaurant in Melaka. One of his responsibility is to have a weekly basis set menu with minimum 5 courses per day. Everyday he will arrange the kitchen staffs accordingly from early morning for food preparation until the restaurant opens at 7.00pm. This action refers to _____.
   A. planning
   B. organising
   C. leading
   D. controlling

3. Labour productivity is also known as _____.
   A. single factor productivity
   B. multi factor productivity
   C. manpower productivity
   D. qualitative productivity

4. Samsung and Bosch managed to have an understanding to have a joint production to produce batteries. This activity refers to _____.
   A. improve operations
   B. improve products
   C. reduce costs
   D. reduce markets

5. There are several considerations that companies need to look into when they want to go global. It is including the conditions below **EXCEPT** _____.
   A. interest and tax rates
   B. deflation
   C. political stability
   D. variations in language

6. Domino's Pizza sets a standard of '20 minutes waiting period' for walk-in customer to receive their orders. This method refers to _____.
   A. competing on cost
   B. flexibility is matching market changes
   C. quickness in delivery
   D. experience the differentiation

Continued...

7. Forecasting is a process of _____ a future event.
   A. accepting
   B. demanding
   C. predicting
   D. solving

8. Forecast of the inflation rate and currency exchange rate refers to _____.
   A. capacity forecast
   B. demand forecast
   C. economic forecast
   D. technological forecast

9. A 'winter coat' is an example of _____.
   A. cyclical component
   B. random component
   C. seasonal component
   D. trend component

10. In creating a new product, an organisation may need to review several considerations below **EXCEPT** _____.
    A. understand the customers' demand
    B. understand the changes of technology
    C. understand the changes of demographic
    D. understand the shareholders' demand

11. A list of products in descending orders may allow the organisation to set different directions for each product. This activity is known as _____.
    A. product development continuum
    B. quality function deployment
    C. value analysis
    D. value engineering

12. Which of the following **BEST** describes the importance of computer-aided design?
    A. Availability of databases.
    B. Availability of machine capacity.
    C. Escalation of manufacturing cost.
    D. Depletion of operations capabilities.

13. _____ is **BEST** described as a never ending process of continuous improvement.
    A. Employee engagement
    B. Kaizen
    C. Taguchi concept
    D. Six Sigma

Continued...

14. Repetitive focus may require _____ while process focus requires _____.
    A. low inventory; high inventory
    B. high inventory; low inventory
    C. complex scheduling; sophisticated scheduling
    D. sophisticated scheduling; complex scheduling

15. Which of the following refers to tangible costs that affects location decision?
    A. Brand value.
    B. Taxes.
    C. Education.
    D. Employee morale.

16. A manufacturer is required to pay an amount of _____ fees to retailers to display their products at the retailer's shop.
    A. booking
    B. commitment
    C. point-of-sales
    D. slotting

17. Assembly line balancing is important to minimise the imbalance between machine and _____ while meeting the required output.
    A. material
    B. product
    C. method
    D. personnel

18. A proper level of illumination depends on the work being performed. Nancy may require a _____ to stitch her customer's dress.
    A. portable LED lamp
    B. overhead ceiling lamp
    C. desk lamp
    D. dental lamp

19. "Labour is treated as variable cost" in labour planning policies. This refers to the decision of _____.
    A. holding the employment process constantly
    B. maximising the hiring process constantly
    C. matching the direct labour cost to production
    D. recruiting expertise or professional workforce

20. Melissa is a Quality Engineer who works in an incoming delivery department. Her manager has assigned a new task where she needs to closely monitor vendors' performance. This practice known as _____.
    A. job enrichment
    B. job enlargement
    C. job rotation
    D. job specialisation

Continued...

21. Manufacturers can assign the distributors to become their manufacturing partners. This method refers to _____.
    A. just-in-time
    B. keiretsu
    C. channel assembly
    D. jidoka

22. Large lots may help reducing the shipping cost but it will _____.
    A. decrease the inventory holding cost
    B. increase the inventory holding cost
    C. decrease the product's standardisation
    D. increase the product's standardisation

23. Work in process inventory refers to a record of _____.
    A. raw materials or component that has been purchased yet to processed
    B. complete product with appropriate packaging yet to deliver
    C. complete components to keep machinery and tools productive
    D. raw material or component that has undergo some processed yet to become finished good

24. ABC analysis is a method where inventory can be divided into _____ classes based on annual volume.
    A. two
    B. three
    C. four
    D. five

25. Sources of variability in operations may come from conditions below **EXCEPT** _____.
    A. adequate maintenance schedules
    B. changing of customer demands
    C. inaccurate drawings or specifications
    D. non-conforming units produced

26. Kanban is a signal to authorise _____.
    A. a production to stop due to defect has been found
    B. a material to be inspect upon arrival from supplier
    C. a production for the next container of material
    D. a material to be ordered to supplier

27. Scheduling must communicate between employees and _____.
    A. customers
    B. managers
    C. suppliers
    D. stakeholders

Continued...

28. The objective of maintenance and _____ is to maintain the _____ of the system.
    A. reliability; sustainability
    B. reliability; capability
    C. breakdown; sustainability
    D. breakdown; capability

29. The employee records that should be contained in maintenance management system includes all **EXCEPT** _____.
    A. autonomous maintenance
    B. inventory results
    C. employee empowerment
    D. reward system

30. Breakdown maintenance may be acceptable for low criticality equipment but not permissible for _____.
    A. systems that could imperil life
    B. longer product life cycle machinery
    C. redundant systems
    D. unscheduled adjustment of equipment

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SECTION B: Structured Questions (70 Marks)

QUESTION 1

a) Describe any **SIX (6)** Total Quality Management tools. (6 marks)

b) Provide **TWO (2)** examples of poka-yoke and **TWO (2)** examples of checklist. (4 marks)

c) Service industry should have a recovery strategy when any services happen to fail. List the Marriot's **FIVE (5)** LEARN routine. (5 marks)

(Total: 15 marks)

QUESTION 2

China Mobile International (CMI), the international operation unit of China's telecommunication giant China Mobile Ltd, has launched its global information and communications technology services, i-Solutions, bringing a seamless, borderless digital connectivity solution for Malaysian market.

CMI Malaysia Managing Director Hew Chee Chung said the CMI has established its operation in Malaysia more than three years ago, and now as the best time to expand on its offering of CMI's cutting edge technology, global operating experience and unparalleled solutions.

"Malaysia is a key market for us in this region to grow and develop our presence as there are a lot of business potentials here. The adoption of Industry Revolution 4.0 among Malaysian enterprises and MNCs that is being actively promoted by the government here is certainly the right vision going forward for many of us that are heavily invested in the space of driving the growth for technology adoption and changes," Hew said.

Adapted from ***https://www.thestar.com.my/business/business-news/2019/07/23/china-mobile-launches-i-solutions-for-enterprises-and-mncs/***

a) Based on the scenario above, CMI has done an in-depth market research upon deciding to open its operations in Malaysia. Describe **THREE (3)** key success factors for location strategy of country decision, region decision and site decision. (9 marks)

b) Service industry may have different perspective in location decision. CMI Malaysia may consider the factors affecting service location decision. Explain any **THREE (3)** major determinants for service location strategy. (6 marks)

(Total: 15 marks)

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QUESTION 3

a) Describe any **FIVE (5)** types of shipping systems and describe **ONE (1)** of the characteristic of each types. (10 marks)

b) Describe the **FOUR (4)** stages of building a supply base. (4 marks)

c) Warehousing may be expensive but organisations should consider to have internal warehousing or using third party. Describe **THREE (3)** ways on how third party warehousing can be the channel of assembly. (6 marks)

(Total: 20 marks)

QUESTION 4

Jimmy is the Operations Manager for a shoe manufacturing company. His job requires him to manage three production lines for three different products. The details as follow:

Production Line 1	**Production Line 2**	**Production Line 3**
Design capacity: 700 pairs	Design capacity: 2300 pairs	Design capacity: 1200 pairs
Effective Capacity: 600 pairs	Effective Capacity: 2100 pairs	Effective Capacity: 1100 pairs
Actual Production: 500 pairs	Actual Production: 1200 pairs	Actual Production: 930 pairs

Exhibit 1

a) Calculate the utilisation rate for each production line. (6 marks)

b) Based on your answer in (a), which production line has the highest and lowest utilisation rate? (2 marks)

c) Calculate the efficiency rate for each production line. (6 marks)

d) Jimmy has re-layout the workstation in Production Line 2 to have a target utilisation rate of 75%. Calculate the expected target for actual output for Production Line 2? (4 marks)

e) Based on your answer in (d), calculate the new efficiency rate for Production Line 2. (2 marks)

****Provide your answer in two decimal points.***

(Total: 20 marks)

End of Paper